

FIG. 1

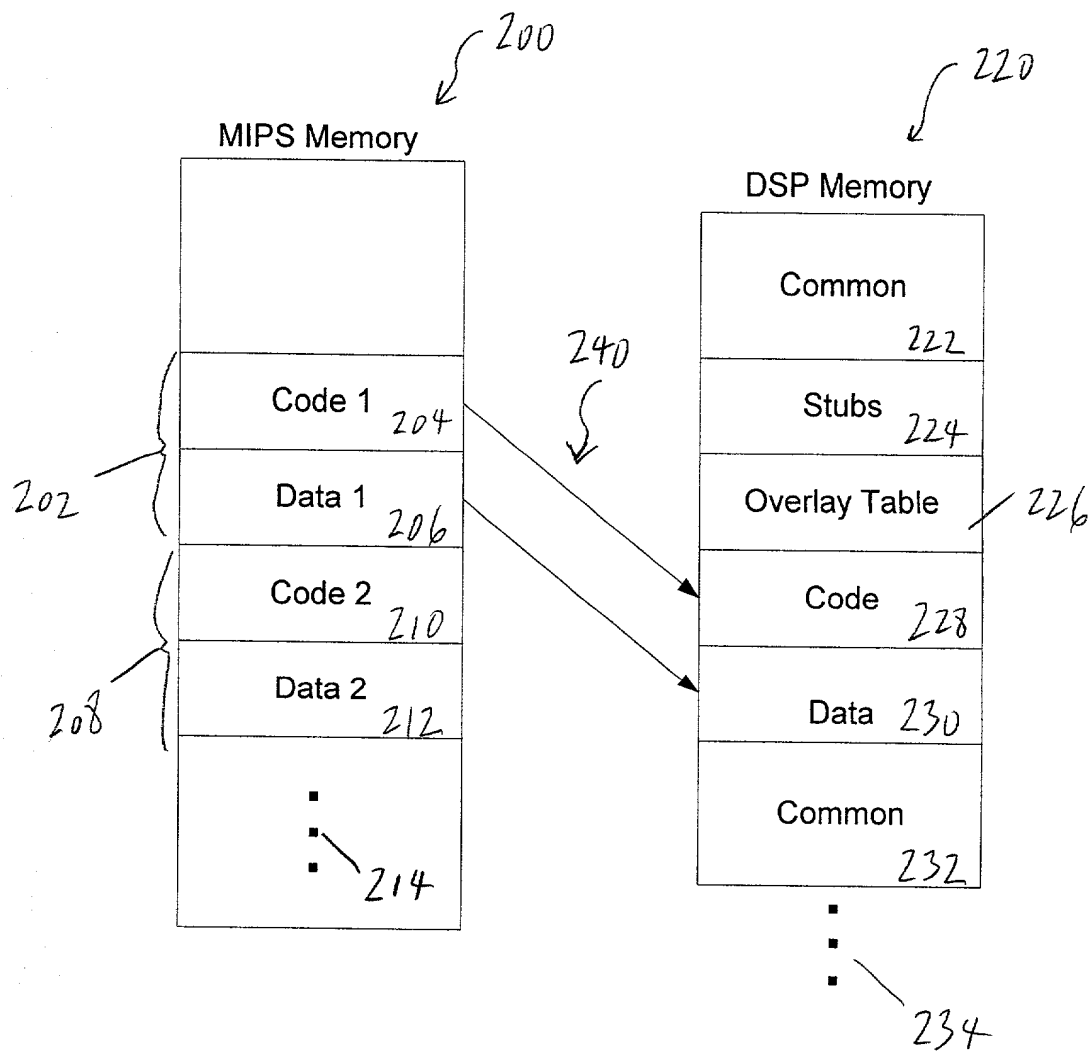


FIG. 2

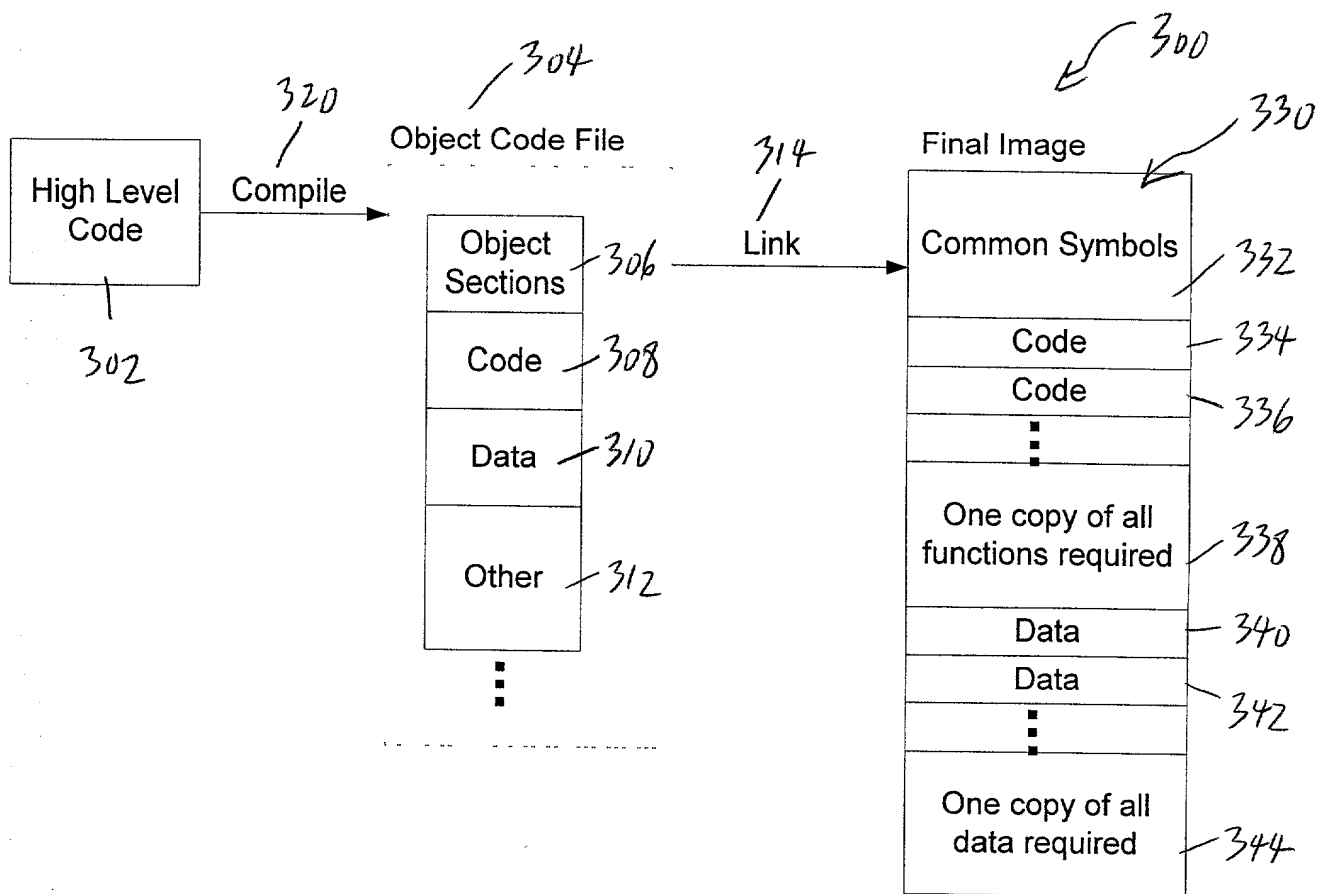


FIG. 3A (Prior Art)

# Traditional Linker

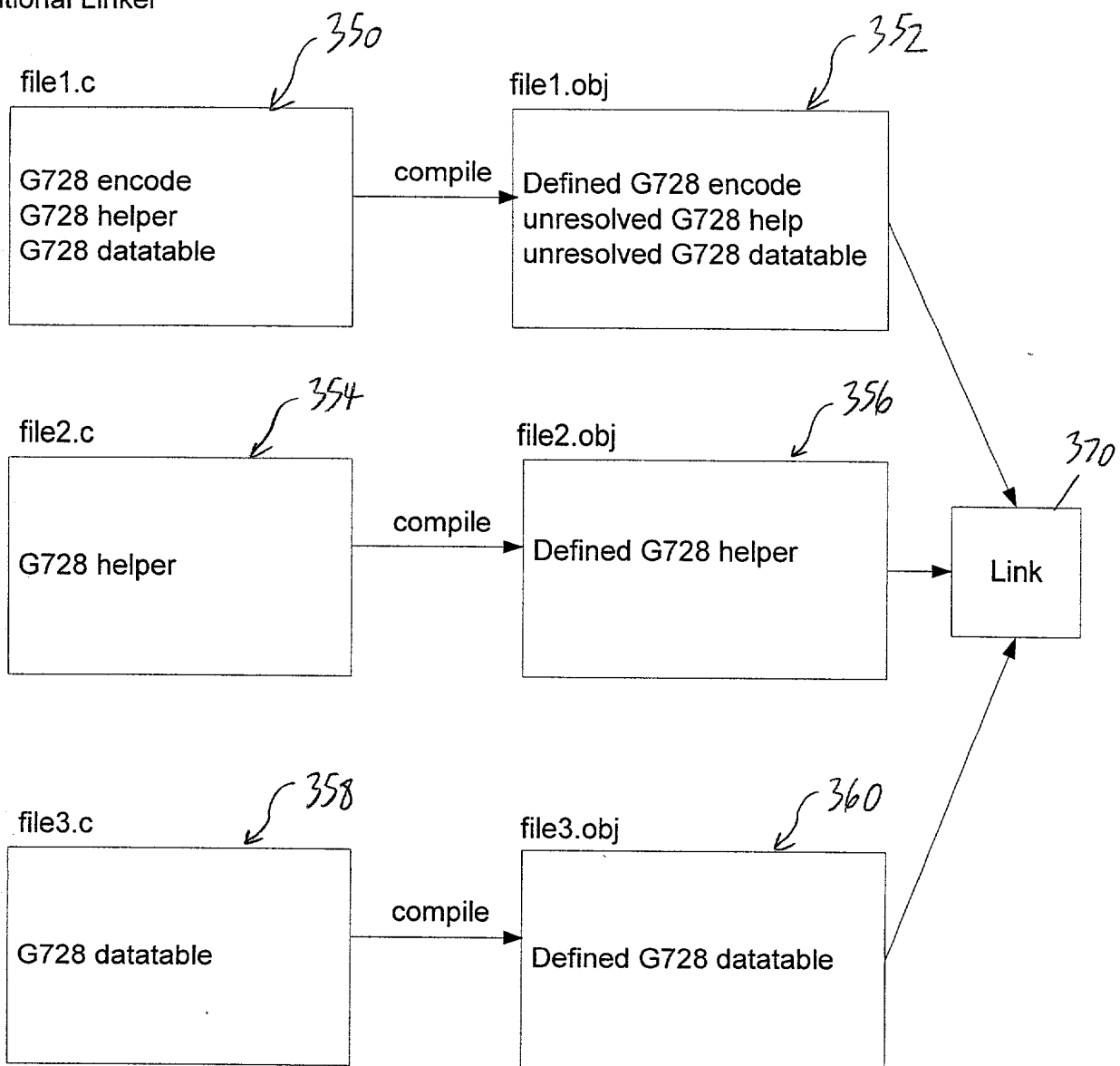


FIG. 3B

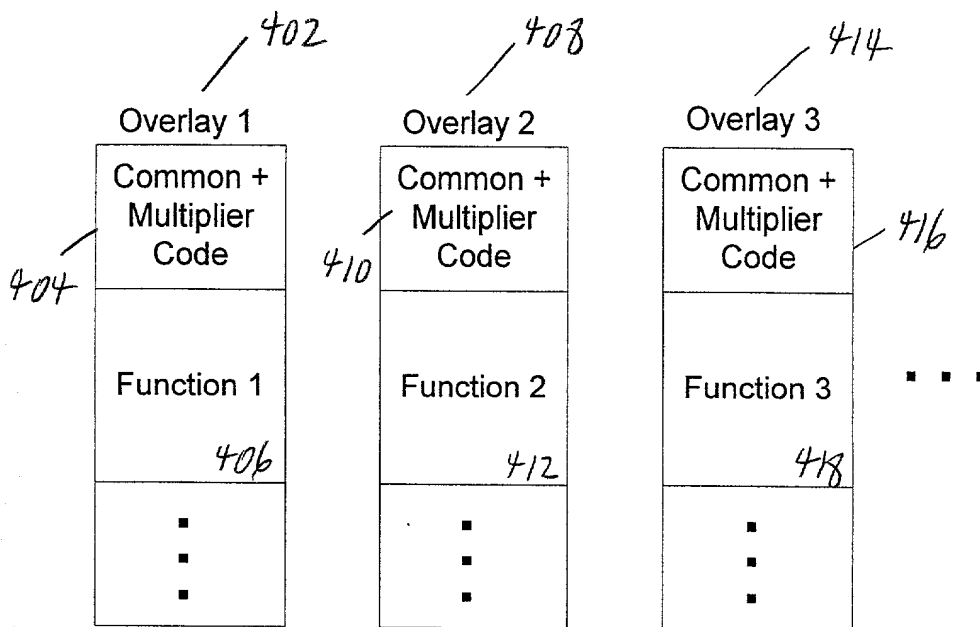


FIG. 4A (Prior Art)

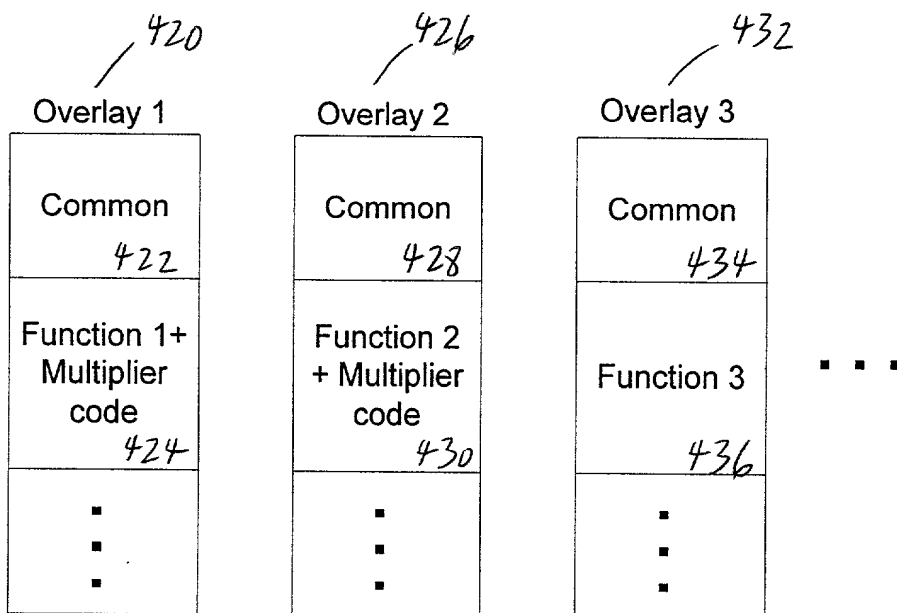


FIG. 4B

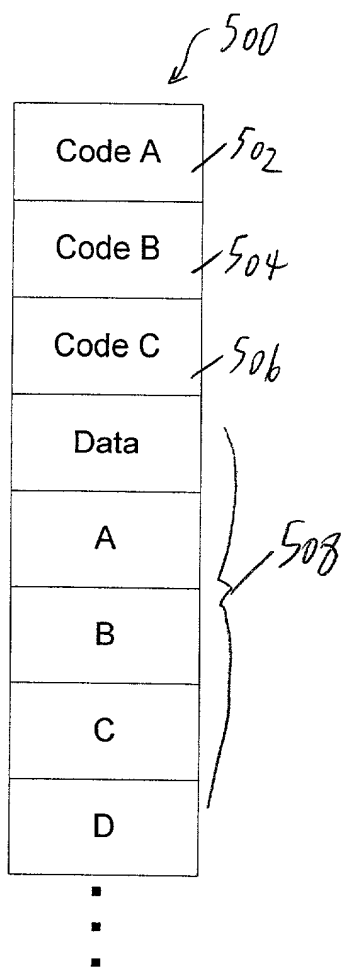


FIG. 5A (Prior Art)

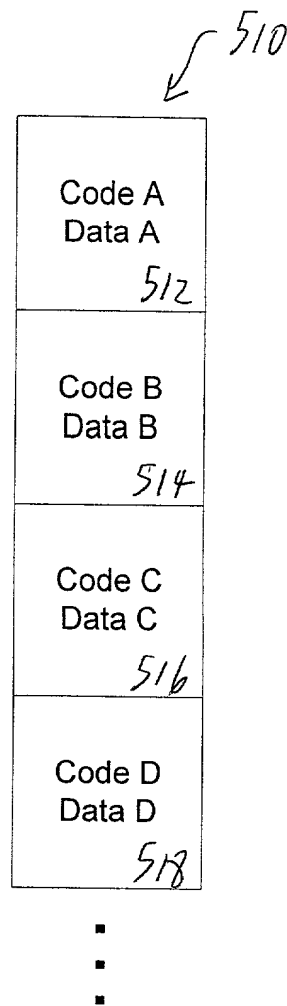


FIG. 5B

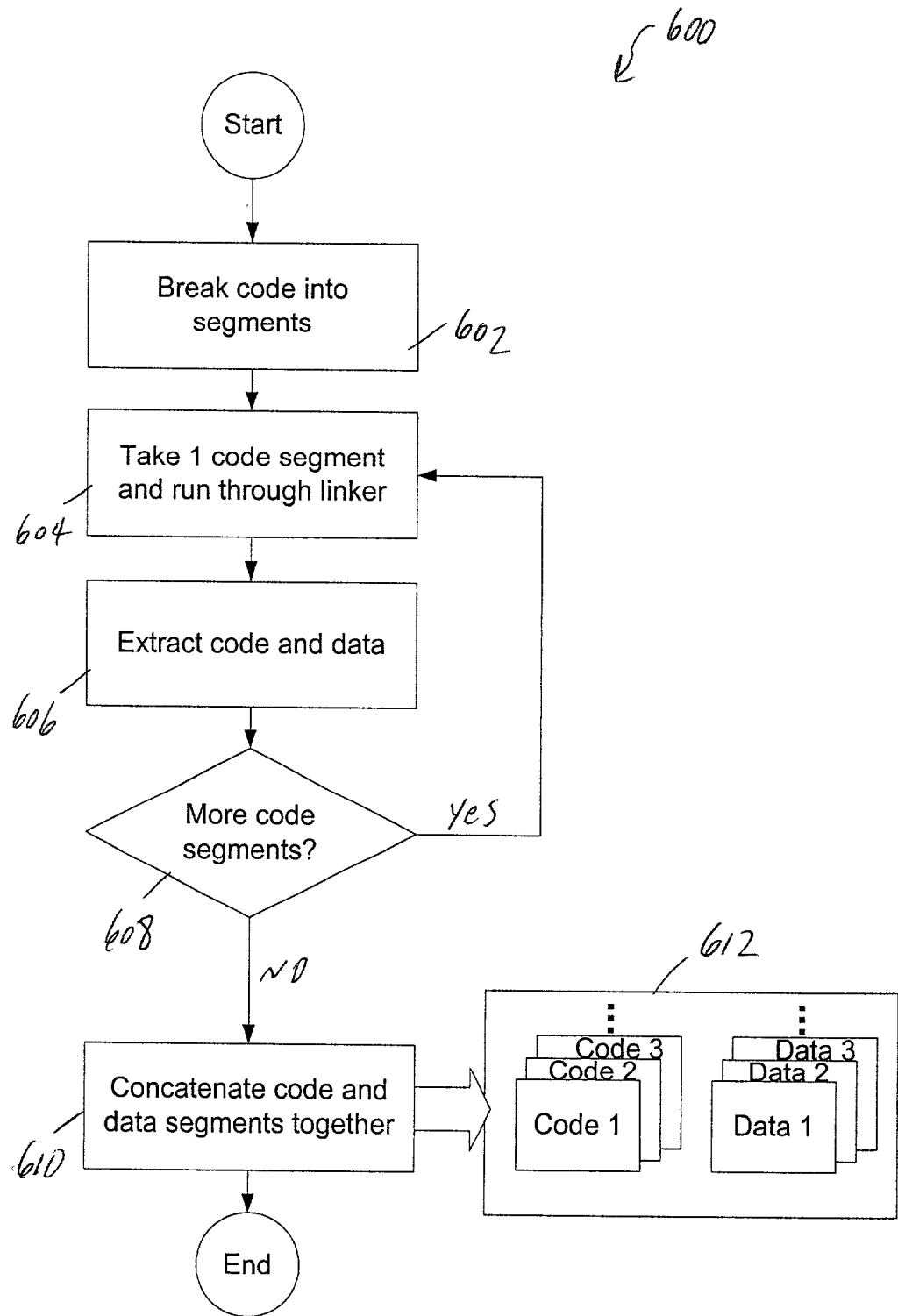


FIG. 6A

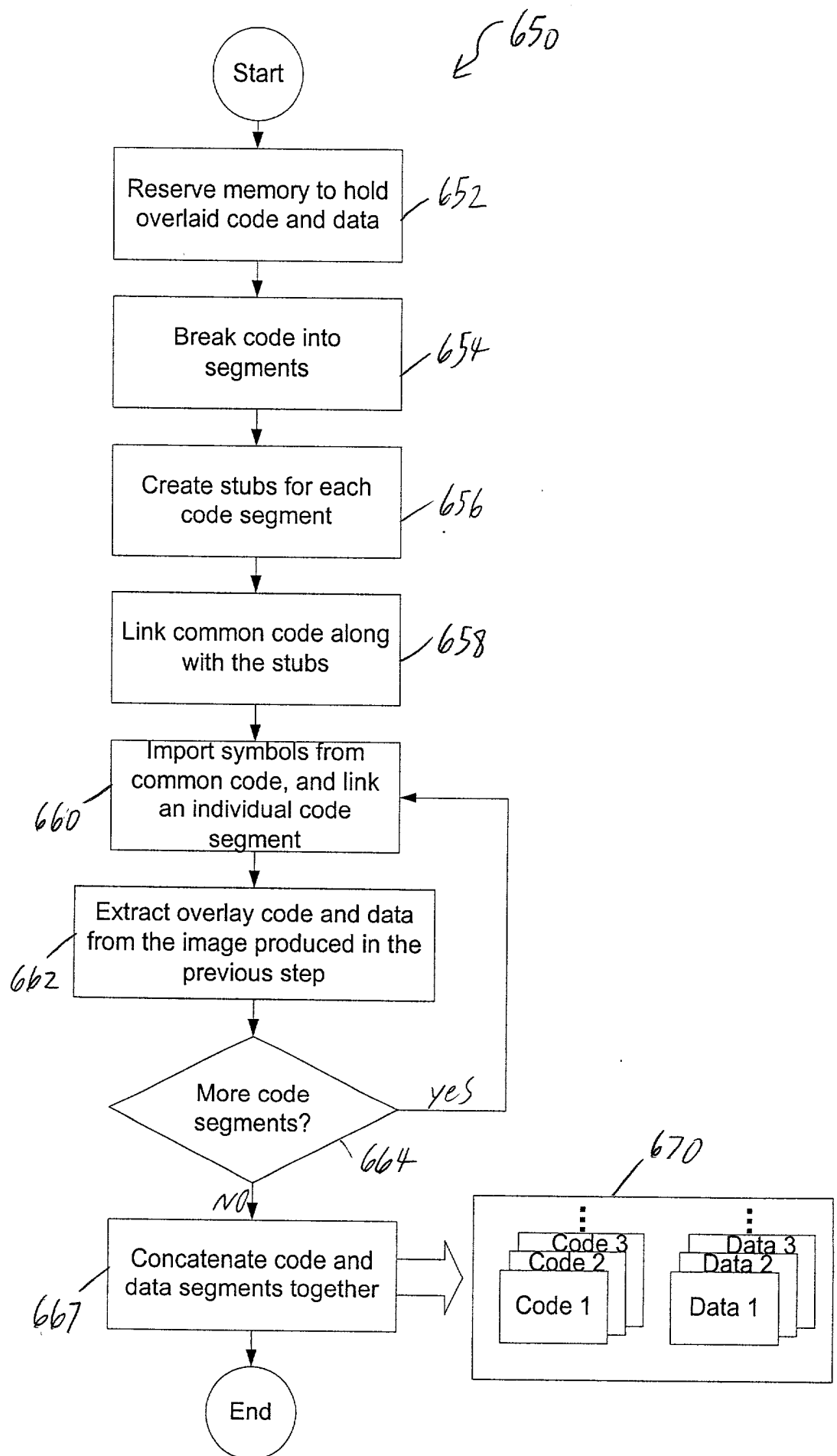


FIG. 6B



Detailed Implementation

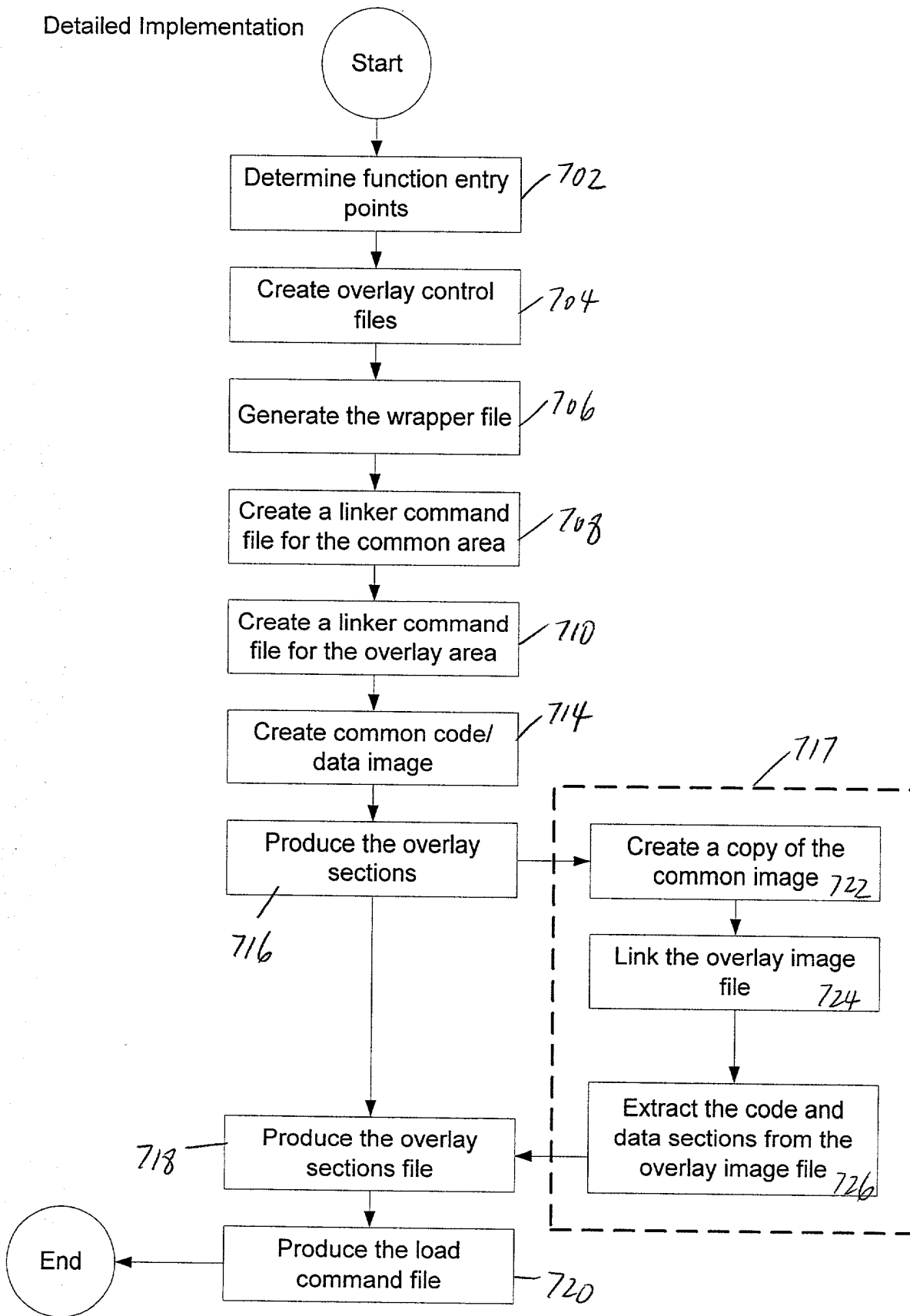


FIG. 7

# Linker Command File:

## Common Area

```
MEMORY
{
    . . . other memory sections removed . . .

    PAGEDCODE(X) : ORIGIN = 0x4200, LENGTH = 0x1800
    PAGEDDATA    : ORIGIN = 0x6000, LENGTH = 0x1400
}

SECTIONS
{
    . . . other sections removed . . .

    pagedCodeSection :
    {
        . = ALIGN(4);
        _dcm_gCodeOverlayAreaStart = ABSOLUTE( . );
        . = . + 0x1800 ;
        _dcm_gCodeOverlayAreaEnd = ABSOLUTE( . );
    } > PAGEDCODE

    pagedDataSect :
    {
        . = ALIGN(4);
        _dcm_gDataOverlayAreaStart = ABSOLUTE( . );
        . = . + 0x1400;
        _dcm_gDataOverlayAreaEnd = ABSOLUTE( . );
    } > PAGEDDATA

    .overlayDescr :
    {
        _dcm_gOverlayDescr = ABSOLUTE( . );
        *(overlay)

        SHORT( -2 )
    } > INTDATA
}
```

FIG. 8A

## Overlay Area

```
MEMORY
{
    . . . other memory sections removed . . .

    PAGEDCODE(X) : ORIGIN = 0x4200, LENGTH = 0x1800
    PAGEDDATA    : ORIGIN = 0x6000, LENGTH = 0x1400
}

SECTIONS
{
    . . . other sections removed . . .

    .text :
    {
        . = ALIGN(4);
        *(.text)
    } > PAGEDCODE

    .data :
    {
        . = ALIGN(4);
        *(.data)
    } > PAGEDDATA
}
```

FIG. 8B